

[028] CLAIMS

What is claimed is:

- 1 1. A method for locating a cutter in a web fed photo imaging system
2 including the steps of:
3 measuring an actual fiducial distance between consecutive fiducials;
4 calculating an average actual fiducial distance between consecutive
5 fiducials;
6 calculating a feed distance scaling factor equal to a difference between an
7 average actual fiducial distance and an imaging engine feed distance divided by
8 a total number of discrete incremental moves between consecutive fiducials; and
9 adjusting the imaging engine feed distance in an amount equal to the
10 scaling factor.
- 1 2. The method for locating a cutter of Claim 1 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between consecutive fiducials at
4 a cutter location.
- 1 3. The method for locating a cutter of Claim 1 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between a first fiducial located
4 near a first cutline of a media and a second fiducial located near a second cutline
5 of the media.
- 1 4. The method for locating a cutter of Claim 1 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises:
4 measuring an actual fiducial distance between multiple consecutive
5 fiducials located along a length of an image, each of the multiple consecutive

6 fiducials located at an equal preselected distance one from the next; and
7 dynamically updating the scaling factor and the imaging engine feed
8 distance.

1 5. The method for locating a cutter of Claim 1 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between consecutive fiducials
4 with a sensor of a cutter control system.

1 6. The method for locating a cutter of Claim 1 wherein the step of
2 calculating a feed distance scaling factor equal to a difference between an
3 average actual fiducial distance and an imaging engine feed distance divided by
4 a total number of discrete incremental moves between consecutive fiducials
5 further comprises calculating a feed distance scaling factor equal to a difference
6 between the average actual fiducial distance and an imaging engine feed
7 distance input at the imaging engine divided by a total number of discrete
8 incremental moves between consecutive fiducials.

1 7. The method for locating a cutter of Claim 1 wherein the step of
2 calculating a feed distance scaling factor equal to a difference between an
3 average actual fiducial distance and the imaging engine feed distance divided by
4 a total number of discrete incremental moves between consecutive fiducials
5 further comprises calculating a feed distance scaling factor based on a difference
6 between the average actual fiducial distance and an imaging engine feed
7 distance measured at the imaging engine divided by a total number of discrete
8 incremental moves between consecutive fiducials.

1 8. The method for locating a cutter of Claim 1 further comprising the
2 steps of:
3 calculating a standard deviation of consecutive actual fiducial distances;
4 and

5 identifying feed errors based on a preselected deviation in consecutive
6 actual fiducial distances.

1 9. The method for locating a cutter of Claim 1 further comprising the
2 steps of:

3 calculating a standard deviation of consecutive actual fiducial distances;
4 and

5 issuing a maintenance alert for an imaging system based on a preselected
6 deviation in consecutive actual fiducial distances.

1 10. A method for locating a cutter in a web fed photo imaging system
2 including the steps of:

3 printing consecutive fiducials at predetermined intervals concurrently with
4 an image printing process;

5 measuring an actual fiducial distance between consecutive fiducials;

6 calculating an average actual fiducial distance between consecutive
7 fiducials;

8 calculating a feed distance scaling factor equal to a difference between an
9 average actual fiducial distance and an imaging engine feed distance divided by
10 a total number of discrete incremental moves between fiducials; and

11 adjusting the imaging engine feed distance in an amount equal to the
12 scaling factor.

1 11. The method for locating a cutter of Claim 10 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between consecutive fiducials at
4 a cutter location.

1 12. The method for locating a cutter of Claim 10 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between a first fiducial located

4 near a first cutline of a media and a second fiducial located near a second cutline
5 of the media.

1 13. The method for locating a cutter of Claim 10 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises:

4 measuring an actual fiducial distance between multiple consecutive
5 fiducials located along a length of an image, each of the multiple consecutive
6 fiducials located at an equal preselected distance one from the next; and
7 dynamically updating the scaling factor and the imaging engine feed
8 distance.

1 14. The method for locating a cutter of Claim 10 wherein the step of
2 measuring an actual fiducial distance between consecutive fiducials further
3 comprises measuring an actual fiducial distance between consecutive fiducials
4 with a sensor of a cutter control system.

1 15. The method for locating a cutter of Claim 10 wherein the step of
2 calculating a feed distance scaling factor equal to a difference between an
3 average actual fiducial distance and an imaging engine feed distance divided by
4 a total number of discrete incremental moves between consecutive fiducials
5 further comprises calculating a feed distance scaling factor equal to a difference
6 between the average actual fiducial distance and an imaging engine feed
7 distance input at the imaging engine divided by a total number of discrete
8 incremental moves between consecutive fiducials.

1 16. The method for locating a cutter of Claim 10 wherein the step of
2 calculating a feed distance scaling factor based on a difference between an
3 average actual fiducial distance and an imaging engine feed distance divided by
4 a total number of discrete incremental moves between consecutive fiducials
5 further comprises calculating a feed distance scaling factor based on a difference

6 between the average actual fiducial distance and an imaging engine feed
7 distance measured at the imaging engine divided by a total number of discrete
8 incremental moves between consecutive fiducials.

1 17. The method for locating a cutter of Claim 10 further comprising the
2 steps of:
3 calculating a standard deviation of consecutive actual fiducial distances;
4 and
5 identifying feed errors based on a preselected deviation in consecutive
6 actual fiducial distances.

1 18. The method for locating a cutter of Claim 10 further comprising the
2 steps of:
3 calculating a standard deviation of consecutive actual fiducial distances;
4 and
5 issuing a maintenance alert for an imaging system based on a preselected
6 deviation in consecutive actual fiducial distances.